



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/644,993   | 08/21/2003  | Jackson Chang        | 0941-0815P          | 7091             |
| 2292   | 7590        | 06/08/2006           |                     | EXAMINER         |
| BIRCH STEWART KOLASCH & BIRCH<br>PO BOX 747<br>FALLS CHURCH, VA 22040-0747 |             |                      | SHENG, TOM V        |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2629                |                  |

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/644,993             | CHANG ET AL.        |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Tom V. Sheng           | 2629                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 21 August 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-14 and 17-20 is/are rejected.
- 7) Claim(s) 15 and 16 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 August 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Soini et al. (US 6,611,693 B2), hereinafter Soini.

As for claim 1, Soini teaches an electronic device (multi-service mobile station 1; fig. 1), comprising:

a body (body shown with a top section 10 and a base section 20; column 3 lines 65-67);

a display unit (displays 11 and 15; fig. 1 and 2) disposed on the body (on top side and backside of section 10; column 4 lines 1-3 and 14-16); and

an index unit (the same body) having a first index port (keyboard 12 on topside of section 10; fig. 1; column 4 lines 3-5) and a second index port (keys 16 and 17 or alternatively keys 22 and 23; fig. 2; column 4 lines 10-23),

moving between a first mode to expose the first index port (as shown in fig. 1; in the folded position, corresponding to mobile telephone mode, keyboard 12 is exposed for access) and a second mode to expose the second index port (as shown in fig. 2; in

the unfolded position, corresponding to terminal mode, keys 16 and 17 or keys 22 and 23 are exposed for access).

As for claims 2 and 3, display 11 is inherently connected to keyboard 12 and display 15 is inherently connected to keys 16, 17, 22 and 23.

As for claim 5, the topside of section 10 and the backside of section 10 correspond to claimed first and second panels respectively, where the display unit is disposed.

3. Claims 1-4, 7-9, 11, 12, 14, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Adriaansen et al. (US 6,700,773 B1), hereinafter Adriaansen.

As for claim 1, Adriaansen teaches an electronic device (computer 173; fig. 39-41), comprising:

a body (panel 139 and main body 175; column 18 line 8);

a display unit (display 169) disposed on the body (mounted on panel 139; column 18 lines 10-11); and

an index unit (module 177; column 18 line 9) having a first index port (keyboard 192) and a second index port (digitizer 196),

moving between a first mode to expose the first index port and a second mode to expose the second index port (module 177 is both slidably and pivotally mounted to the main body 175; column 18 lines 19-26 and 41-55). Specifically, keyboard mode is shown in fig. 39 and digitizer mode is shown in fig. 41, with the transition shown in fig. 40.

As for claims 2 and 3, the keyboard and digitizer are both to be connected to the display 169 via a processor (column 18 line 64 through column 19 line 20).

As for claim 4, Adriaansen teaches a slot 175a that houses the module 177 and thus corresponds to claimed seat for receiving the index unit (column 18 lines 24-26).

As for claim 7, Adriaansen teaches an electronic device (computer 173; fig. 39-41), comprising:

a first element (main body 175; column 18 line 8);

a second element (panel 139; column 18 line 8) coupled to the first element (main body 175) with at least one degree of freedom (via a pair of double hinges 210; column 18 lines 11-12); and

an index unit (module 177; column 18 line 9) coupled to the first element (main body 175) with at least two degrees of freedom (module 177 is both slidably and pivotally mounted to the main body 175; column 18 lines 41-55).

As for claim 8, Adriaansen teaches a display 169 mounted on the panel 139 that corresponds to claimed display unit disposed on the second element.

As for claims 9 and 11, Adriaansen teaches a keyboard 192 and digitizer 196 mounted on opposite sides of the module 177 that correspond to claimed first and second index ports electronically connected to the display unit (column 18 lines 19-26; column 18 line 64 through column 19 line 20).

As for claim 12, Adriaansen teaches a slot 175a that houses the module 177 and thus corresponds to claimed seat for receiving the index unit (column 18 lines 24-26).

As for claim 14, Adriaansen teaches an electronic device (computer 173; fig. 39-41), comprising:

a first element (main body 175; column 18 line 8);

a second element (panel 139; column 18 line 8) coupled to the first element (main body 175) along a first axis (via a pair of double hinges 210 an axis of rotation is formed; column 18 lines 11-12);

a display unit (display 169) disposed on the second element (mounted on panel 139; column 18 lines 10-11);

an intermediate element (a pair of cylindrical nodes 189a) disposed on the first element (main body 175) along a second axis (cylindrical nodes 189a are provided on the lower left and lower right edges of the module 177 and pivotally coupled to the main body 175 along another axis; column 18 lines 27-55); and

an index unit (module 177; column 18 line 9) disposed on the intermediate element (module 177 is fixedly coupled with the pair of cylindrical nodes 189a).

Claim 17 is rejected per rejection analysis of claim 9.

Claim 18 is rejected per rejection analysis of claim 12.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soini.

As for claim 6, Soini does not teach what kind of display is used of the display unit. However, it would have been obvious to one of ordinary skill in the art to utilize LCD as one common choice because of its small size, light weight and good display quality.

6. Claims 5, 6, 10, 13, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adriaansen.

As for claims 5, 13 and 19, Adriaansen's display 169 is disposed on the inside of the panel 139. Thus, Adriaansen does not teach a display unit disposed on both panels (meaning sides according to Applicants) of the second element. However, it would have been obvious to one of ordinary skill in the art to achieve this with a double sided display, for the distinct advantage of providing a display even in the closed position, much like a tablet. This is advantageous when one simply wants to watch a video without the need of accessing either a keyboard or a digitizer.

As for claim 6, Adriaansen does not teach what kind of display is used of the display unit. However, it would have been obvious to one of ordinary skill in the art to utilize LCD as one common choice because of its small size, light weight and good display quality.

As for claims 10 and 20, Adriaansen does not teach what kind of display is used of the display unit. However, it would have been obvious to one of ordinary skill in the

art to utilize LCD as one common choice because of its small size, light weight and good display quality.

***Allowable Subject Matter***

7. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter: none of the prior arts of record teaches the limitation “wherein the index unit is coupled to the intermediate element along a third axis.” Specifically, since the module 177 is fixedly coupled with the left and right cylindrical nodes 189a, module 177 cannot be coupled to the nodes 189a along a third axis. Also, other prior arts of record do not provide this feature or make this feature obvious.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nagasawa (US 6,782,281 B1) teaches a folding portable telephone with a liquid crystal display and further having a game mode.

Tyneski et al. (US 5,584,054) teaches a handset with a communication mode and a organizer mode.

Shah (US 6,215,474), Lundqvist (US 6,424,844), Jambhekar et al. (5,742,894), Wong et al. (US 7,023,421) teach communication devices.

Okuyama et al. (US 5,262,763) and Karidis et al. (US 6,628,267) teach electronic devices changeable user interfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Sheng  
June 4, 2006



BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600